







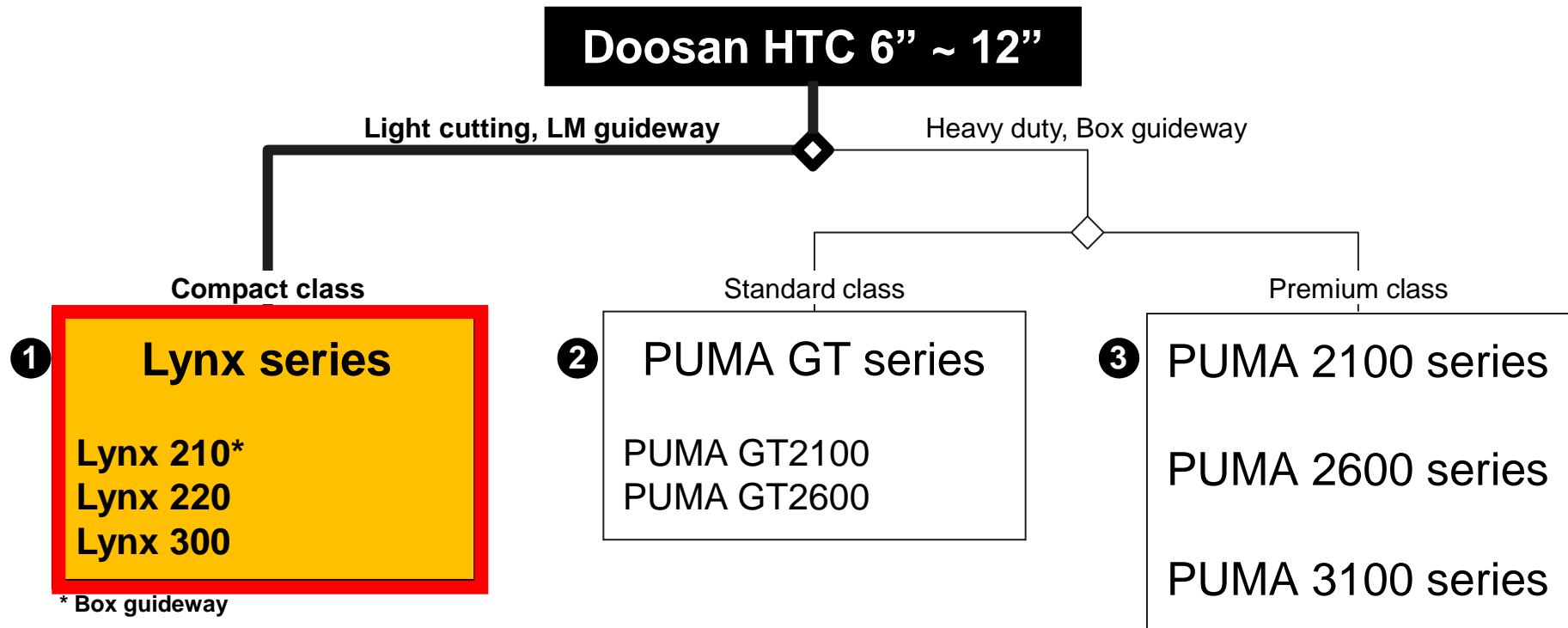


A-1. Horizontal TC

Chuck size (inch)	a	b	c	d		e		f	g		
	Small size HTC		Medium size HTC	Large size HTC		Multi-tasking HTC		Twin turret HTC	2spindle HTC	Aluminum Wheel turn HTC	
	Lynx series	PUMA GT series	PUMA series		PUMA SMX series	PUMA MX series	PUMA TT series	PUMA TL series	PUMA HT/QL series	PUMA AW series	
											
6	Lynx 210 Lynx 220A						MX1600	TT1500		HT230T	
8	Lynx 220B Lynx 220C	GT2100	PUMA 2100				MX2100	TT1800 TT2000	TL2000	H250T QL200H	
10	Lynx 300	GT2100B GT2600	PUMA 2600			SMX2500	MX2600	TT2500	TL2500	H310T QL300H	
12			PUMA 2600B PUMA 3100	PUMA 400A		SMX3100	MX3100				
15				PUMA 400B							
18					PUMA 600						
21				PUMA 400C PUMA 480							
24					PUMA 700						
32					PUMA 800						
Big bore				PUMA 480D (275mm)	PUMA 800B (375mm)						
Wheel dia.											AW560(20") AW660(24")

a Small size HTC

Concept...



Product line-up / Designation

		Function						
Max. ing dia. (mm)	Max. turning length (mm)	Gang	2 axis	M	S	MS	Y	SY
		X/Z axis	X/Z axis	2 axis + Milling	2 axis + Sub spindle	2 axis + Milling + Sub spindle	2 axis + Milling + Y axis	2 axis + Milling + Y axis + Sub spindle
320	322		Lynx 220a					
	542		Lynx 220aL					
280	300		Lynx 210A					
320	322	Lynx 220G super	Lynx 220A					
	542		Lynx 220LA					
240	290			Lynx 220MA			Lynx 220YA	
80	•S: 525			Lynx 220LMA	Lynx 220LSA	Lynx 220LMSA	Lynx 220LYA	Lynx 220LSYA
ers: 300	•Others: 510							
280	300		Lynx 210B					
	305		Lynx 220B					
: 320	525		Lynx 220LB					
240	•2ax: 305		Lynx 220C	Lynx 220MC			Lynx 220YC	
80	•M/Y: 290		Lynx 220LC	Lynx 220LMC	Lynx 220LSC	Lynx 220LMSC	Lynx 220LYC	Lynx 220LSYC
ers: 300	•2ax/S: 525							
	•Others: 510							
: 450	•2ax: 765		Lynx 300	Lynx 300M				
370	•M: 712							

※ Lynx 210A/B, Lynx 220aL/LA/LB/LC/LYA/LYC, Lynx 300/M: Manual tailstock as standard

※ Lynx 220a/A/B/C: Manual tailstock as option

※ Lynx 220G super/MA/MC/YA/YC: Tailstock not available due to no tailstock guideway

※ Lynx 220LSA/LSC/LMSA/LMSC/LSYA/LSYC: Tailstock not available due to the sub spindle

1

2

Upgrade

New

- ※ Lynx 210A/B, Lynx 220aL/LA/LB/LC/LYA/LYC, Lynx 300/M: Manual tailstock as standard
- ※ Lynx 220a/A/B/C: Manual tailstock as option
- ※ Lynx 220G super/MA/MC/YA/YC: Tailstock not available due to no tailstock guideway
- ※ Lynx 220LSA/LSC/LMSA/LMSC/LSYA/LSYC: Tailstock not available due to the sub spindle

Upgrade

New

Lynx 220

[Suffix & Application] M : Milling, A/B/C : 6/8/10inch chuck size, L : Longer Z axis travel
S : Sub spindle, Y : Y axis w/ M

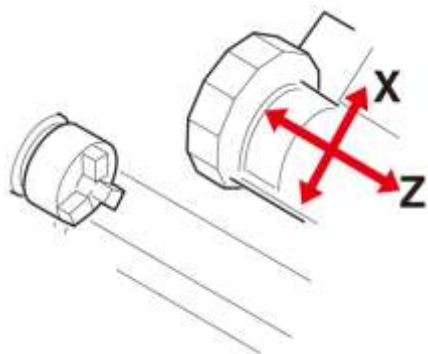
[Nominal Size Chuck size] 220 : 152/203mm (6/8inch), 300 : 254mm (10inch)

Lynx : Brand



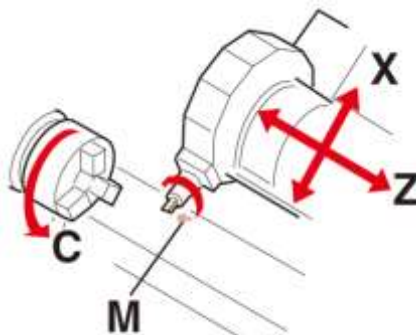
MODEL VARIATION BY FUNCTIONS

Turning



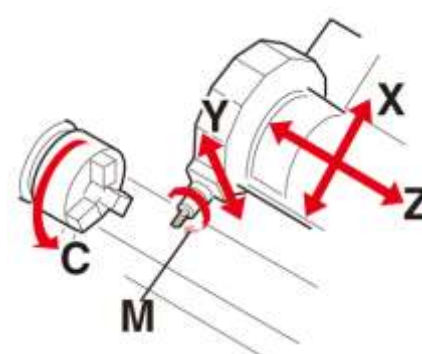
2-axis

Mill-turning

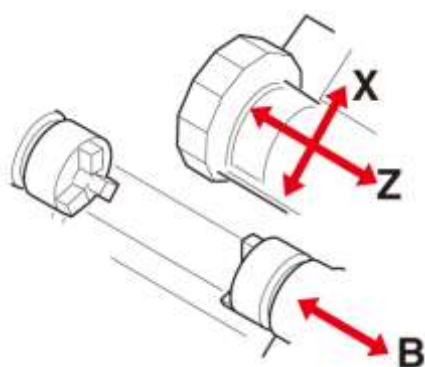


M

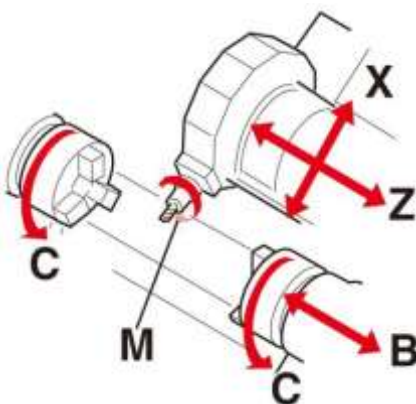
Y-axis mill-turning



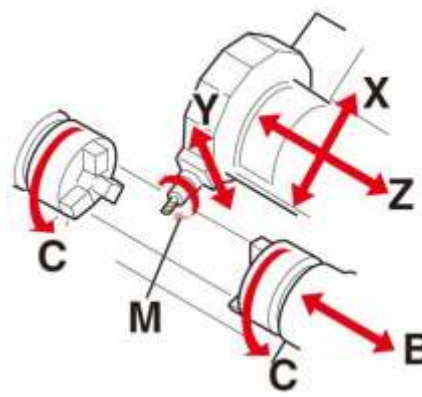
Y



S



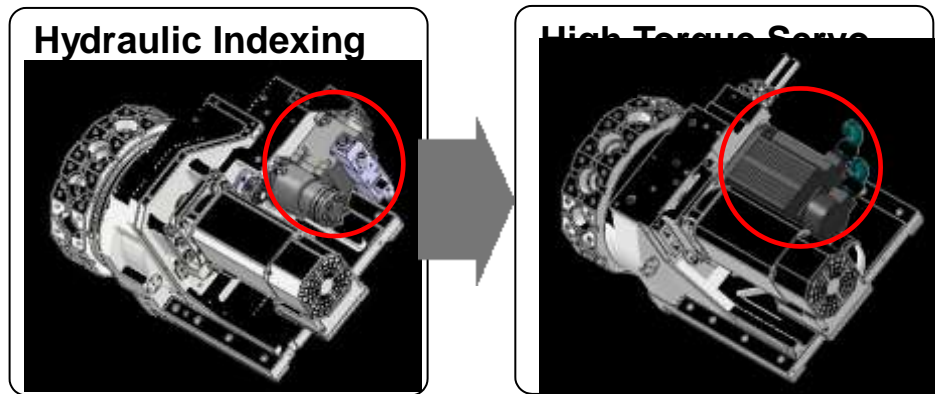
MS



SY

1 Lynx series Upgrade

New tool post with servo motor driven indexing for all Lynxes to improve reliability and productivity

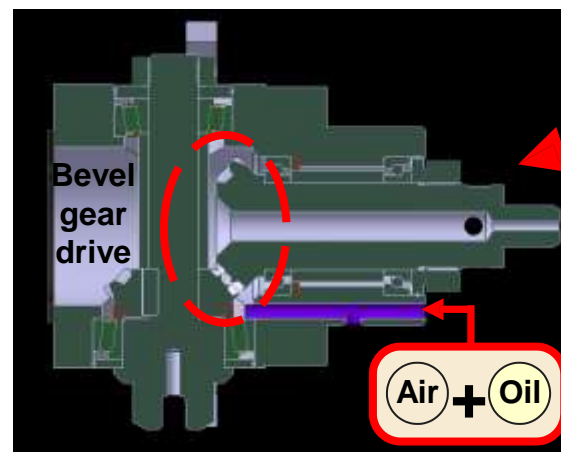


Model Group	Turret Indexing method	
	AS-IS	TO-BE
2axis	Hyndraulic type	New Servo Type
M	Old Servo Type	
S/MS	Old Servo Type	
Y/SY	New Servo Type	

Model Group	TOOL DRIVE	
	AS-IS	TO-BE
2axis	N/A	N/A
M	Old type	New Type (air+oil)
S/MS	Old type	
Y/SY	New Type	

New tool drive device for M/Y version models

- Silent driving
- Air / oil lubrication and cooling to reduce thermal growth from the milling drive train and extend the life of the drive gears

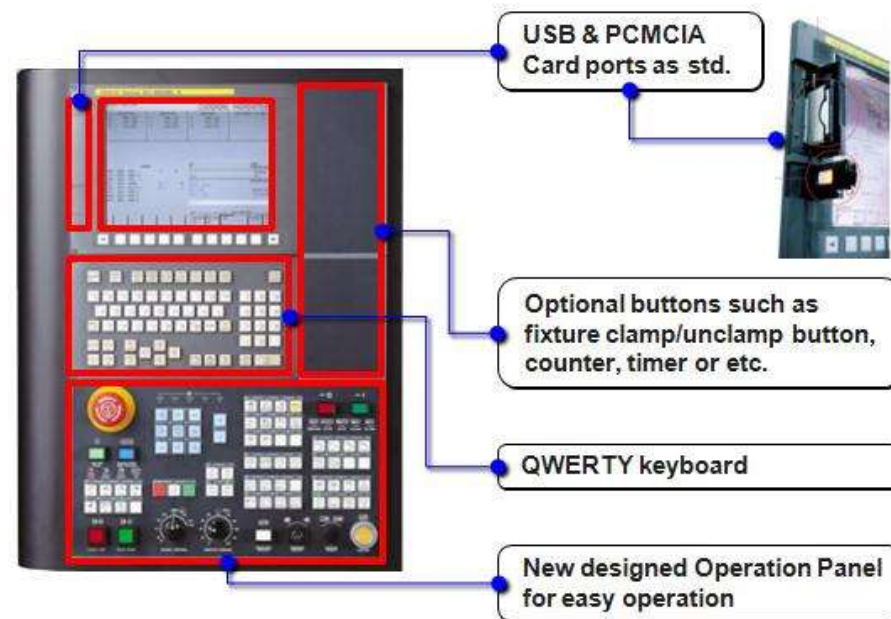


1 Lynx series Upgrade

Roller type LM guideway in all models & all axes for high rigidity & long life



New OP & Fanuc 0iTD for convenience



MODEL	LM guideway Type	
	AS-IS	TO-BE
Lynx 220/L	Ball	Roller
Lynx 220M/LM	Ball	Roller
Lynx 220LS/LMS	Roller	←
Lynx 220LY/LSY	Roller	←

2 Lynx 220Y/LY/LSY ^{New}

Sales points...



Compact Turning Center

- New addition of Y axis machine to Lynx 220M/LM & Lynx 220LMS for customers who require higher productivity from Lynx series or more additionally competitive choice as a compact class besides PUMA Y axis machine



1 Largest Y axis travel
105(± 52.5)mm compared
to the same class

2 Roller type LM guideway in
X/Y/Z all axes for high
rigidity & long life

3 New OP & Fanuc 0iTD with
10.4" Color LCD & EZ-i for
convenience

1 Sales point

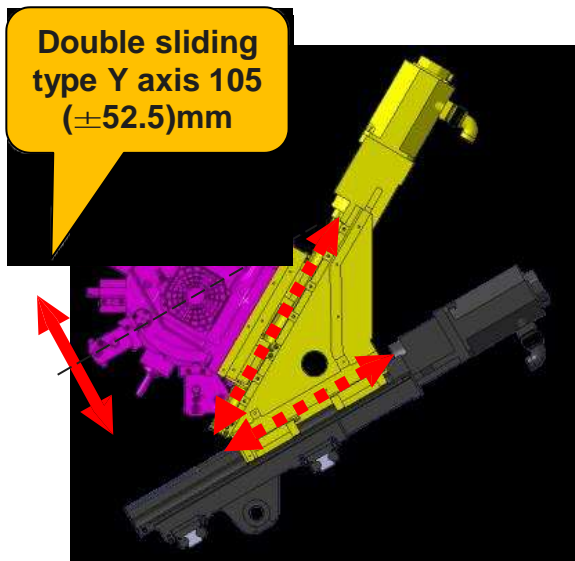
Largest Y axis travel 105(±52.5)mm compared to the same class

Customers can choose proper size machine and get wide machining capacity. Because Lynx 220 Y series provide various line-up and 105(±52.5)mm of Y-axis travel for off-center grooving, milling, tapping, and drilling.

2 bed frame (Z800/1250mm)
for HTC 6"~15", Y 140mm is
over spec. for HTC 6"/8" class

1 bed frame
(Z560mm) for
HTC 6"/8"

Double sliding
type Y axis 105
(±52.5)mm



Y 105mm

Y 100mm

Y 102mm

Y 105mm

Y 100mm

Y 140mm

Y 105mm



6 inch

L220YA
L220LYA
L220LSYA

QTN 100-II MY ST-10Y

QTN 100-II MSY

NLX1500Y TC15Y/800 B545Y
NLX1500SY TC15Y/1350 B545YS

8 inch

L220YC
L220LYC
L220LSYC

QTN 200-II MY ST-20Y
QTN 200-II MSY DS-30Y

P2100Y
P2100LY NLX2000Y TC20Y/800 B565Y
P2100SY NLX2000SY TC20Y/1350 B565YS
P2100LSY

Roller

Roller

Ball

BOX Guideway

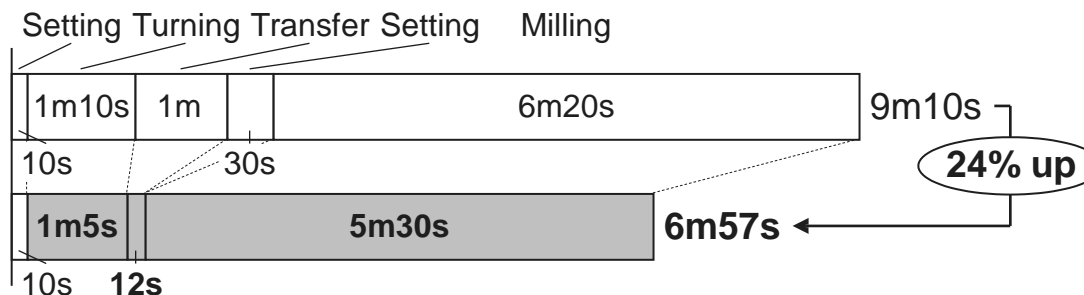
I M Guideway

One machine to obtain high productivity & accuracy, **One set-up** to save cutting time,
One operator to reduce labor cost



- Machinery Component
- Aluminum (AL7075) /
Ø 70 x 35 mm
- 16 tools

General
process
(TC+MC)
**Lynx
220LSY**



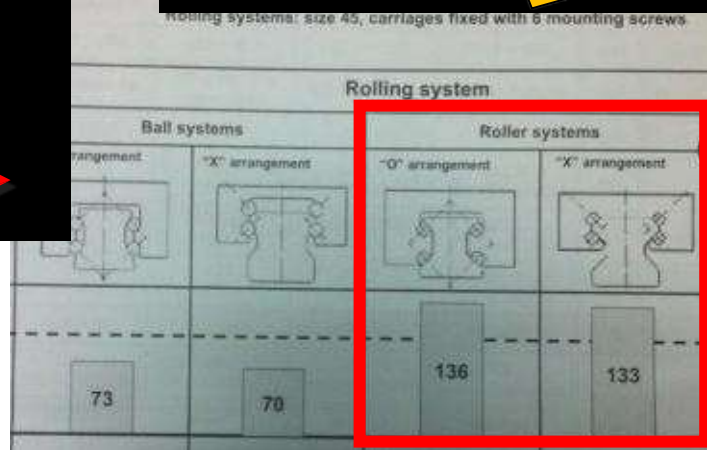
② Sales point

Roller type LM guideway in X/Y/Z all axes for high rigidity & long life



	DOOSAN	Mazak	HAS	DOOSAN	DMG	MORI SEIKI	CMZ	Biglia
6 inch	L220YA L220LYA L220LSYA	QTN 100-II MY QTN 100-II MSY	ST-10Y 		NLX1500Y NLX1500SY	TC15Y/800 TC15Y/1350	B545Y B545YS	
8 inch	L220YC L220LYC L220LSYC	QTN 200-II MY QTN 200-II MSY	ST-20Y DS-30Y	P2100Y P2100LY P2100SY P2100LSY	NLX2000Y NLX2000SY	TC20Y/800 TC20Y/1350	B565Y B565YS	
	Roller	Roller	Ball	Box Guideway				
	LM Guideway							

Roller LMG is more rigid
- about twice than Ball LMG



Roller LMG's life is longer about
twice than Ball LMG

Roller►

Ball►

Roller►

Ball►

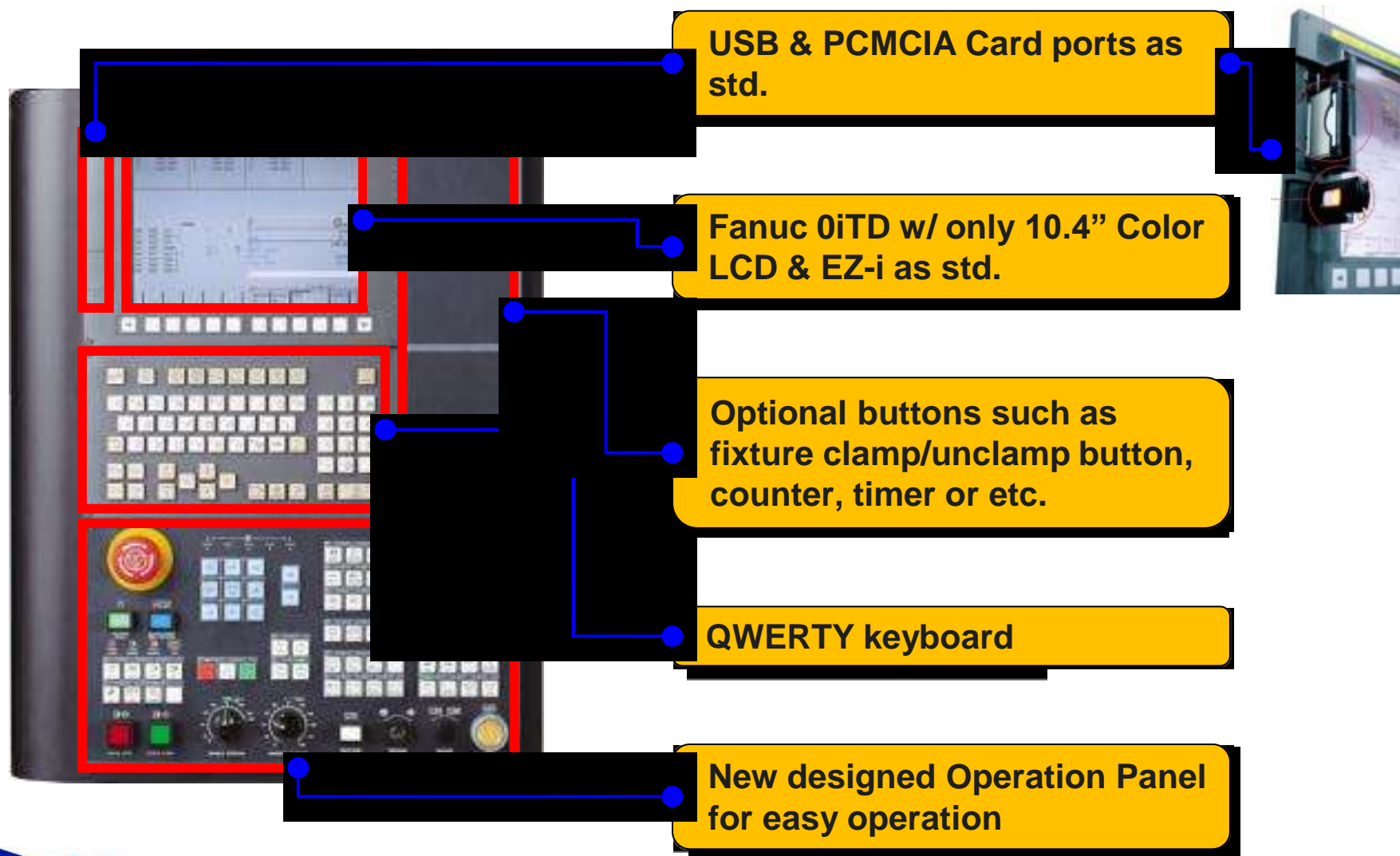
Roller►

Ball►

X axis	Service Life
Roller► RG35C-ZB	22,930(km)
Ball► HG35C-ZB	10,146(km)
Y axis	Service Life
Roller► RG45C-ZA	88,345 (km)
Ball► HG45C-ZA	41,654 (km)
Z axis	Service Life
Roller► RG45C-ZA	116,088 (km)
Ball► HG45C-ZA	60,185 (km)

3 Sales point

New OP & Fanuc 0iTD with 10.4" Color LCD & EZ-i for convenience



1 2 3 Summary

Main Spindle

- L220YA/LYA/LSYA
 - 6", 6000 r/min
 - **Bar capa. : 51 mm (2 inch)**
- L220YC/LYC/LSYC
 - 8", 4500 r/min
 - Bar capa. : 65 mm (2.55 inch)
- Belt driven Spindle
- C-Axis Control

Bar feeder interface (Opt.)

Tool Setter(Opt.)

Auto / Manual type (Renishaw)

Point

Carriage

- **Y-Axis 105 mm (± 52.5 mm)**
- **Roller type LMG in X/Y axis**

Tool Post

- OD / ID Size : $\square 20 / \varnothing 32$ (mm)
- Milling Turret : 12-station(24-pos.)
 - BMT45P Milling Head (Std.)
 - Max. Speed : 6,000 r/min
 - Low Heat Live Tool Drive
 - **Turret Index. Time: 0.15 sec**
 - Mazak: 0.18(6") / 0.2(8") sec
 - HAAS: 0.5 sec
 - DMG/Moriseiki: 0.25 sec
 - CMZ: 0.15 sec
 - Biglia: 0.15 sec

Point

Operation Panel

- **Fanuc 0iTD**
- **10.4" Color LCD & EZ-i (Std.)**
- **USB & PCMGIA Card ports (Std.)**
- **QWERTY keyboard**
- **New OP**



Point

- L = Std. 330 / Long 550 mm
- Rigid Slant Bed (30°)
- **Roller type LMG in Z axis**

- For Main or Sub Spindle

- 5" Chuck (6,000 r/min)
- Belt type Spindle
- C-Axis Control

MTS(Std.) / PTS(Opt.)

- MT4 (Live)
- *** NOT available on L220YA/YC**